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Gly Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln Leu
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Ser Glu Val Ala Met His Ser Leu Gly Leu Ala Phe Ile Tyr Asp Gln
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Thr Glu Asp Ile Arg Asp Val Leu Arg Ser Phe Met Asp Gly Phe Thr
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Thr Leu Lys Glu Asn Ile Met Arg Phe Trp Arg Ser Pro Asn Pro Gly
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Ser Trp Val Ser Cys Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Leu
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Asn Gln Val Ala Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp Leu
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Cys Leu Arg Ser Pro Arg Leu Val Gln Leu Pro Gly Ile Ala Ile His
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Arg Leu Ala Val Thr Tyr Ser Arg Thr Gly Val Arg Gly Ile Phe Arg
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<220>
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Met Ser Glu Val Arg Pro Leu Ser Arg Asp Ile Leu Met Glu Thr Leu
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Leu Tyr Glu Gln Leu Leu Glu Pro Pro Thr Met Glu Val Leu Gly Met
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Asp Asp Ser Glu Glu Asp Leu Asp Pro Met Glu Asp Phe Asp Ser Leu
        35                  40                  45

Glu Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys Ile
    50                  55                  60

Gly Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln Leu
65                  70                  75                  80

Ser Glu Val Ala Met His Ser Leu Gly Leu Ala Phe Ile Tyr Asp Gln
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Thr Leu Lys Glu Asn Ile Met Arg Phe Trp Arg Ser Pro Asn Pro Gly
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Ser Trp Val Ser Cys Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Leu
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Ala Leu Leu Leu Pro Leu Leu Ser Gly Gly Leu His Leu Leu Leu Lys
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<211> 160
<212> PRT
<213> Artificial Sequence

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<223> Description of Artificial Sequence:   Synthetic
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Leu Tyr Glu Gln Leu Leu Glu Pro Pro Thr Met Glu Val Leu Gly Met
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Thr Asp Asp Glu Glu Asp Leu Asp Pro Met Glu Asp Phe Asp Ser Leu
        35              40              45

Glu Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys Ile
        50              55              60

Gly Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln Leu
 65              70              75              80

Ser Glu Val Ala Met His Ser Leu Gly Leu Ala Phe Ile Tyr Asp Gln
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Thr Glu Asp Ile Arg Asp Val Leu Arg Ser Phe Met Asp Gly Phe Thr
            100             105             110

Thr Leu Lys Glu Asn Ile Met Arg Phe Trp Arg Ser Pro Asn Pro Gly
            115             120             125

Ser Trp Val Ser Cys Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Leu
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Ala Leu Leu Leu Pro Leu Leu Ser Gly Gly Leu His Leu Leu Leu Lys
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<211> 160
<212> PRT
<213> Artificial Sequence

<220>
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Leu Tyr Glu Gln Leu Leu Glu Pro Pro Thr Met Glu Val Leu Gly Met
             20   25   30

Asp Asp Asp Glu Glu Asp Leu Asp Pro Met Glu Asp Phe Asp Ser Leu
         35   40   45

Glu Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys Ile
     50   55   60

Gly Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln Leu
 65   70   75   80

Ser Glu Val Ala Met His Ser Leu Gly Leu Ala Phe Ile Tyr Asp Gln
             85   90   95

Thr Glu Asp Ile Arg Asp Val Leu Arg Ser Phe Met Asp Gly Phe Thr
            100   105   110

Thr Leu Lys Glu Asn Ile Met Arg Phe Trp Arg Ser Pro Asn Pro Gly
        115   120   125

Ser Trp Val Ser Cys Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Leu
        130   135   140

Ala Leu Leu Leu Pro Leu Leu Ser Gly Gly Leu His Leu Leu Leu Lys
145   150   155   160

<210> 10
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Peptide

<400> 10
Ala Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp
  1   5   10

<210> 11
<211> 12
<212> PRT
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 11
Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp Val
  1               5                   10


<210> 12
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Peptide

<400> 12
Ala Leu Ala Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp Val Ser
  1               5                   10                  15

Leu Arg


<210> 13
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Peptide

<400> 13
Leu Ala Leu Arg Leu Ala Cys Ile Gly Asp Glu Met Asp Val Ser Leu
  1               5                   10                  15

Arg Ala


<210> 14
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 14
Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Ala Leu Leu Leu Pro
  1               5                   10                  15

Leu Leu Ser Gly Gly Leu His Leu Leu Leu Lys
              20                  25
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<210> 15
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
      Primer

<400> 15
aggacccagg tacctatgtt caaaagtgcc tc                              32


<210> 16
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
      Primer

<400> 16
ccttgcctgc tgctttccac caagtgct                                  28


<210> 17
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
      Primer

<400> 17
caggttggga aaatggtcag ccctcctgaa a                              31


<210> 18
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
      Primer

<400> 18
cgttctgagg cgggcaatca aatgacctat                                30


<210> 19
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
      Primer
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<400> 19
cccgctagcc taattttatt ttatttttaa ttc                              33


<210> 20
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 20
cccctcgagg tattttggaa aaatgtcctt atctag                          36


<210> 21
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 21
cgcacgcgta ggcatcagct ctctacaatt c                               31


<210> 22
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 22
agcctcgagc aggatctgag ataagaacca cg                              32


<210> 23
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 23
acggcgctcg agtccatcag ttctcatc                                   28


<210> 24
<211> 28
<212> DNA
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 24
ttacttaagc ttgtgtagga cgcctgtc   28

<210> 25
<211> 452
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 25
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cggggtcatt agttcatagc ccatatatgg agttccgcgt tacataactt acggtaaatg 120
gcccgcctgg ctgaccgccc aacgaccccc gcccattgac gtcaataatg acgtatgttc 180
ccatagtaac gccaataggg actttccatt gacgtcaatg ggtggagtat ttacggtaaa 240
ctgcccactt ggcagtacat caagtgtatc atatgccaag tacgccccct attgacgtca 300
atgacggtaa atggcccgcc tggcattatg cccagtacat gaccttatgg gactttccta 360
cttggcagta catctacgta ttagtcatcg ctattaccat ggtgatgcgg ttttggcagt 420
acatcaatgg gcgtggatag cggtttgact ca   452

<210> 26
<211> 180
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 26
agacggtgag agcgagtcag ggattggctg gtctgcttcg ggcgggctaa aggaaggttc 60
aagtggagct ctcctaaccg acgcgcgtct gtggagaagc ggcttggtcg ggggtggtct 120
cgtggggtcc tgcctgttta gtcgctttca gggttcttga gccccttcac gaccgtcacc 180

<210> 27
<211> 231
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 27
cggccgccag tgtgatggat atctgcagaa ttcgcccttg cgatctgtca gagcacctcg 60
cgagcgtacg tgcctcagga agtgacgcac agcccccctg ggggccgggg gcggggccag 120
gctataaacc gccggttagg ggccgccatc ccctcagagc gtcgggatat cgggtgaagg 180
gcgaattcca gcacactggc ggccgttact agtggatccg agctcggtac c   231

<210> 28
<211> 1757

25401618.1   21

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 28
ccttgcctgc tgctttccac caagtgctgg agagctggtg aattgctcac tcccggctca 60
ttcctctaat gaccgaagcg tctcgcagat gcaacctgcc gtggaggagc agggagggag 120
tgatttccag gtgtgggctt tttcagccat tcctaaaggc gacttgagtt cacctcactc 180
actccagcat ttgtactcct gttgtggaaa aggcagtgag cacaagccaa gcccgctcca 240
ccttcacccc gccccacctc ccccggccct ttcctgggcc agtcttaggg ccctgagtac 300
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acatatgcac ggacacacac acacacacag aggcttcccc agtactcctc tatataggaa 420
cccgtcacca tcccagacat atgcagaaga aagcccaaac cggctgtgtg agacaggaac 480
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1560
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1620
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1680
agcaaaatag gctgtcccca gtgcaagtgc aggtgccaga acatttctct atcgataggt
1740
accgagctca tttaggt
1757

<210> 29
<211> 646
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

22

Primer

<400> 29
aatcaacctc tggattacaa aatttgtgaa agattgactg gtattcttaa ctatgttgct 60
ccttttacgc tatgtggata cgctgcttta atgcctttgt atcatgctat tgcttcccgt 120
atggctttca ttttctcctc cttgtataaa tcctggttgc tgtctcttta tgaggagttg 180
tggcccgttg tcaggcaacg tggcgtggtg tgcactgtgt ttgctgacgc aacccccact 240
ggttggggca ttgccaccac ctgtcagctc ctttccggga ctttcgcttt cccctccct 300
attgccacgg cggaactcat cgccgcctgc cttgcccgct gctggacagg ggctcggctg 360
ttgggcactg acaattccgt ggtgttgtcg gggaagctga cgtcctttcc atggctgctc 420
gcctgtgttg ccacctggat tctgcgcggg acgtccttct gctacgtccc ttcggccctc 480
aatccagcgg accttccttc ccgcggcctg ctgccggctc tgcggcctct tccgcgtctt 540
cgccttcgcc ctcagacgag tcggatctcc ctttgggccg cctccccgcc tggaattcga 600
gctcggtacg ggctcgacta gagtcggggc ggccggccgc ttcgag 646

<210> 30
<211> 819
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 30
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tctagaggat ctcggacccg gggaatcccc gtcccccaac atgtccagat cgaaatcgtc 120
tagcgcgtcg gcatgcgcca tcgccacgtc ctcgccgtct aagtggagct cgtcccccag 180
gctgacatcg gtcgggggg cggatctcgg acccggggaa tccccgtccc ccaacatgtc 240
cagatcgaaa tcgtctagcg cgtcggcatg cgccatcgcc acgtcctcgc cgtctaagtg 300
gagctcgtcc cccaggctga catcggtcgg ggggcggat ccccgggct gcaggaattc 360
cggcgataca gtcaactgtc tttgaccttt gttactactc tcttccgatg atgatgtcgc 420
acttattcta tgctgtctca atgttagagg catatcagtc tccactgaag ccaatctatc 480
tgtgacggca tctttattca cattatcttg tacaaataat cctgttaaca atgctttat 540
atcctgtaaa gaatccattt tcaaaatcat gtcaaggtct tctcgaggaa aaatcagtag 600
aaatagctgt tccagtcttt ctagccttga ttccacttct gtcagatgtg ccctagtcag 660
cggagacctt ttggttttgg gagagtagcg acactcccag ttgttcttca gacacttggc 720
gcacttcggt ttttctttgg agcacttgag ctttttaagt cggcaaatat cgcatgcttg 780
ttcgatagaa gacagtagct tcatctttca ggaggctag 819

<210> 31
<211> 1352
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Primer

<400> 31
acagacattg acattgtgtc atctagtata caaataggtt cttggagtac tttactaggc 60
atggacaatg cccaatgcct gtcccattct tcaggcatat ttttatttgt gggctttatg 120
tccctattaa gaaaaagact aagaacaaga tgctatcata ttttcttaac tggaatggta 180
gatgtttaaa catgatgact accaagcttg gctagaacat tgtgtcatct agtatacaaa 240
taggttcttg gagtacttta ctaggcatgg acaatgccca atgcctgtcc cattcttcag 300
gcatattttt atttgtgggc tttatgtccc tattaagaaa aagactaaga acaagatgct 360
atcataagct ccaagcttat cgccagctgg gaatagagat aggaggggac ccagctggat 420
gcagtgggca gtgggggtca tagagtcaag agggtacaga atacaatggg gtcctagtat 480
catggtggag gtcagaaaga gccctaaaag agagggtcaa ggtaggaggt tagtgaaggt 540

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ccacctccac cctctccagg acagggacat caggccacaa ttaatttctc tgcagttggt 600
gagtggtcat ggtctctgga gtccccagca tccagagtgt ccctggtcta gtggtccccc 660
ctttctgagc cacagccact ttctccatca aatgaggcca gtaatacccca tcccatagtg 720
atgctgtgag gatgagatga gcatctgtaa gtgctgaaga taatccctga cacatcccaa 780
gcattcagca gtgcaagcat acacttacac ggcactcccc agagccaggc atgtgctggt 840
gcctcataca cgtgaccaca tttgatcgtc acaatgaccc tgtgagggag actgtgcaac 900
agaggactga ccttgctcaa agacctcagg cgtttccccct cagagcctga gaggtcatct 960
ctttttttttt tttttttttcc tttctttctt tttcttttcc atttcttttt ctttgcaaga
1020
ggtcatctct aatgctttgg aatatcctgc cagattagag tccctttgtt cacctgaagg
1080
tttgggccac accagatagt ctaacggtgt gatttgtgct gaaggttttg agccacacta
1140
tatcagctag atttctagag cggccggccg caataaaata tctttatttt cattacatct
1200
gtgtgttggt tttttgtgtg aatcgatagt actaacatac gctctccatc aaaacaaaac
1260
gaaacaaaac aaactagcaa aataggctgt ccccagtgca agtgcaggtg ccagaacatt
1320
tctctatcga taggtaccga gctcatttag gt
1352


<210> 32
<211> 496
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
     Primer

<400> 32
ggccgcccca cgtgcgcagc aggacgcagc gctgcctgaa actcgcgccg cgaggagagg 60
gcggggccgc ggaaaggaaa gggggggggct gggaggcccg gagggggctg ggccggggac 120
ccgggagggg tcgggacggg gcggggtccg cgcggaggag gcggagctgg aaggtgaagg 180
ggcaggacgg gtgcccgggt ccccagtccc tccgccacgt ggggagcgcg gtcctgggcg 240
tctgtgcccg cgaatccact gggagcccgg cctggccccg acagcgcagc tgctccgggc 300
ggacccgggg gtctgggccg cgcttccccg cccgcgcgcc gctcgcgctc ccagggtgca 360
gggacgccag cgagggcccc agcggagaga ggtcgaatcg gcctaggctg tggggtaacc 420
cgagggaggg gcctctagat ataagggcga attccagcac actggcggcc gttactagtg 480
gatccgagct cggtac                                                 496


<210> 33
<211> 857
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
     Primer

<400> 33
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tctagaggat ctcggacccg gggaatcccc gtcccccaac atgtccagat cgaaatcgtc 120
tagcgcgtcg gcatgcgcca tcgccacgtc ctcgccgtct aagtggagct cgtcccccag 180
gctgacatcg gtcgggggg cggatctcgg acccggggaa tccccgtccc ccaacatgtc 240
cagatcgaaa tcgtctagcg cgtcggcatg cgccatcgcc acgtcctcgc cgtctaagtg 300
gagctcgtcc cccaggctga catcggtcgg ggggcggat ccccgggct gcaggaattc 360
cggcgataca gtcaactgtc tttgaccttt gttactactc tcttccgatg atgatgtcgc 420
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acttattcta tgctgtctca atgttagagg catatcagtc tccactgaag ccaatctatc 480
tgtgacggca tctttattca cattatcttg tacaaataat cctgttaaca atgctttat 540
atcctgtaaa gaatccattt tcaaaatcat gtcaaggtct tctcgaggaa aaatcagtag 600
aaatagctgt tccagtcttt ctagccttga ttccacttct gtcagatgtg ccctagtcag 660
cggagacctt ttggtttttgg gagagtagcg acactcccag ttgttcttca gacacttggc 720
gcacttcggt ttttctttgg agcacttgag ctttttaagt cggcaaatat cgcatgcttg 780
ttcgatagaa gacagtagct tcatctttca ggaggctagg gccgccagtg tgatggatat 840
ctgcagaatt cgcccctt                                                857


<210> 34
<211> 8512
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:   Synthetic
      Primer

<400> 34
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ggacaaacca caactagaat gcagtgaaaa aaatgcttta tttgtgaaat ttgtgatgct 120
attgctttat ttgtaaccat tataagctgc aataaacaag ttaacaacaa caattgcatt 180
cattttatgt ttcaggttca gggggaggtg tgggaggttt tttaaagcaa gtaaaacctc 240
tacaaatgtg gtatggctga ttatgatcat gaacagactg tgaggactga ggggcctgaa 300
atgagccttg ggactgtgaa tttaaaatac acaaacaatt agaatcagta gtttaacaca 360
ttatacactt aaaaatttta tatttacctt agagctttaa atctctgtag gtagtttgtc 420
caattatgtc acaccacaga agtaaggttc cttcacaaag atcccaagct gtcgatcgac 480
atttctagag gatctcggac ccggggaatc cccgtccccc aacatgtcca gatcgaaatc 540
gtctagcgcg tcggcatgcg ccatcgccac gtcctcgccg tctaagtgga gctcgtcccc 600
caggctgaca tcggtcgggg gggcggatct cggacccggg gaatccccgt cccccaacat 660
gtccagatcg aaatcgtcta gcgcgtcggc atgcgccatc gccacgtcct cgccgtctaa 720
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1260
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aattgctcac tcccggctca ttcctctaat gaccgaagcg tctcgcagat gcaacctgcc
1380
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1440
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1500
cacaagccaa gcccgctcca ccttcacccc gccccacctc ccccggccct ttcctgggcc
1560
agtcttaggg ccctgagtac agacagcctg gctacccgtt aaccattctc agcgtgtggc
1620
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1680
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2220
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2340
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2520
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2700
caagaggtca tctctaatgc tttggaatat cctgccagat tagagtccct ttgttcacct
2760
gaaggtttgg gccacaccag atagtctaac ggtgtgattt gtgctgaagg ttttgagcca
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2940
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3240
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:  Synthetic
      Primer

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<210> 37
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<212> DNA
<213> Artificial Sequence

<220>
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      Primer

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taaatggccc gcctggctga ccgcccaacg accccgccc attgacgtca ataatgacgt 180
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